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ABSTRACT

This manual specifies the skills and abilities possessed by the graduates of programs offered by the Terry Campus of Delaware Technical and Community College. First, introductory material discusses the college's competency-based philosophy and the efforts by faculty and administrators to criterion reference the competencies perceived by faculty to be relevant with those actually desired by employers. Then, competencies are enumerated for each program: Administrative Office Systems Technology with options in Accounting (Associate in Applied Science--AAS), Clerical Studies (Diploma), Information Processing (AAS), Executive Secretarial (AAS), Medical Office Assistant (Certificate), Stenographic Studies (Diploma), and Word Processing (Diploma); Aeronautical Science Technology with options in Aviation Management (AAS) and Flight (AAS); Business Administration Technology with options in Accounting (AAS), Banking (AAS), General Business (AAS), and Management and Marketing (AAS), Building Science Technology with options in Architectural Drafting (AAS and Diploma), Civil Engineering (AAS), Construction Management (AAS), Construction Studies (Diploma), Mechanical Drafting (Diploma), and Surveying Studies (Diploma); Criminal Justice (AAS); Data Processing (AAS); Computer Engineering (AAS); Electronics (AAS); Human Services (AAS); Electromechanical Engineering (AAS); and Practical Nursing (Diploma). Information on cooperative education options is included where applicable. (AYC)

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CURRICULUM COMPETENCIES 1984

JC 840 371

Terry Campus

DELAWARE TECHNICAL AND COMMUNITY COLLEGE

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FOREWORD

This edition of Curriculum Competencies - 1984 is the third one since the Terry Campus faculty embarked upon this project in 1976. The task of defining the skills and abilities of our graduates is an arduous one because it involves the criterion referencing of competencies perceived to be relevent by our faculty with those actually desired by the employers of our graduates. Through these curriculum competencies and through the Campus's corresponding competency-based course objectives, the Terry Campus faculty and administration are publicly expressing their commitment to the competency-based philosophy of instruction. It is our opinion that the highest standards of academic excellence will be achieved by our students under this system of instruction. While we cannot warrant our students' retention of knowledge and skills, we at least can assure the employers of our graduates that, as a minimum, our students have demonstrated proficiency in these stated competencies while they were under our direction.

The success of this project is mainly due to the efforts of the following individuals:

Department Chairmen:

Carol Adams	English/Reading
Lowell Barrett	Aeronautical Science
Thomas Burgoon	Data Processing
Evanelle Geldof	Administrative Office Systems
Samuel Guccione	Engineering Technologies
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Donald Phillips	Joan Tynan
Claudia Cola, Secretary	

Others:

Mari Reynolds, Administrative Aide
Dr. Paul Kessler, Dean of Instruction

A.A.S.	AOS: Accounting Option

A student completing six quarters of Administrative Office Systems Technology - Accounting Option requirements receives an Associate in Applied Science (A.A.S.) degree. For the graduate, broad training is provided in the secretarial field, as well as, accounting skills needed for business office functions.

Minimum Competencies:

Upon completion of the two-year accounting option, the graduate will have demonstrated competency in:

1. Typing straight-copy material at a minimum of 60 words a minute for 5 minutes with at least 98 percent accuracy.

2. Typing business papers for a sustained period of up to 50 minutes at the following production rates:

   Letters, 22 w.a.m.
   Statistical Tables, 12 w.a.m.
   Manuscripts and Reports, 18 w.a.m.
   Forms, 13 w.a.m.

3. Taking dictation of a non-technical nature at a minimum rate of 80 words a minute for 3 minutes and transcribing it back with 98 percent accuracy at a minimum transcription rate of 12 words a minute.

4. Taking dictation and transcribing in mailable letter form at progressive dictation rates from 60 to 80 words a minute and progressive transcription rates from 12 to 16 words a minute for a sustained period of 30 minutes.

5. Filing correspondence in an alphabetic, numeric, subject, or geographic file; maintaining files using "out" guides and requisitions; and utilizing techniques of micrographics.

6. Inputing mathematical data using the touch system and the 10-key numeric pad of the microprocessor.

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7. Handling incoming and outgoing telephone calls in a friendly, courteous, helpful, and businesslike manner.

8. Sorting, opening, dating, stamping, annotating, and distributing incoming mail.

9. Preparing outgoing mail, including folding and inserting letters properly into envelopes, sealing, weighing, and affixing appropriate postage on each item.

10. Composing letters, memos, and reports that are coherent, concise, clear, complete, and grammatically correct.

11. Locating and summarizing information for a report or speech using general and business sources of information.

12. Taking minutes of a meeting and transcribing them back in proper format without error.

13. Planning a meeting or conference and following through on all details.

14. Planning an itinerary and making necessary travel arrangements.

15. Transcribing business documents from a voice-recording machine.

16. Greeting visitors in a manner which exhibits appropriate business behavior.

17. Performing all the steps in the accounting cycle for a single proprietorship, partnership, and corporation.

18. Using a word processor to type, store, edit, and recall business documents.

19. Duplicating documents on convenience copiers.

20. Using the electronic typewriter, the word processor, and the word-processing capabilities of a microprocessor to type business documents.

21. Utilizing and applying the principles of basic marketing, management, accounting, and statistics.

22. Understanding the impact of positive motivation on people being managed. Motivation theories assimilated are those of:

    a. Taylor
    b. Hawthorne Studies
    c. Maslow
    d. McGregor
    e. Herzberg

23. Analyzing, journalizing, and summarizing the day-to-day transactions for a business concern.

24. Establishing and maintaining basic systems of internal control over:

    a. Cash receipts and disbursements
    b. Payroll
    c. Petty cash

25. Maintaining accurate records of receivables and payables, including open account subsidiary ledgers, and negotiable paper.

26. Maintaining accurate records of inventory and cost of goods sold using FIFO, LIFO, weighted average, and lower of cost or market value for both physical and perpetual methods.

27. Recording and maintaining accurate records for the acquisition, depreciation (all accepted methods), amortization, depletion, and disposal of long-term assets.

28. Maintaining a payroll system which will include the computation and recording of:

    a. Gross earnings
    b. Applicable deductions
    c. Net pay
    d. Employer's associated tax liabilities

29. Preparing all budgets, allocations, and entries necessary to record the operation of a departmentalized or branch operation.

30. Analyzing, recording, and summarizing the day-to-day transactions of a manufacturing firm using either the process system or the job order system for:

    a. Materials, purchases, and inventory
    b. All direct costs and allocations
    c. Factory overhead allocations
    d. Work in process
    e. Finished goods inventory

31. Preparing the complete master budget using standards and interpreting any variance between standard costs and actual costs.

32. Utilizing the correct usage of the English language as applied to office correspondence.

33. Implementing word-processing components to improve the efficiency of the office.

34. Performing the duties of a correspondence secretary, administrative secretary, and office supervisor in an actual in-house office situation.

35. Recognizing the basic concepts of computer hardware, software, and processing methods.

36. Using arithmetic and basic statistical concepts necessary for problem-solving techniques.

37. Composing and dictating correspondence using standardized procedures and dictating equipment.

38. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

39. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Accounting option will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 132 hours in an off-campus office setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

Diploma	AOS: Clerical Studies

A student completing three quarters of Administrative Office Systems Technology - Clerical Studies requirements receives a diploma. For the graduate, minimum training is provided in the secretarial field with emphasis on office procedures.

Minimum Competencies:

Upon completion of the one-year clerical studies diploma program, the graduate will have demonstrated competency in:

1. Typing straight-copy material at a minimum of 50 words a minute for 5 minutes with 98 percent accuracy.

2. Typing business documents for a sustained period of up to 50 minutes at the following rates:

   Letters, 20 w.a.m.
   Statistical Tables, 12 w.a.m.
   Manuscripts and Reports, 17 w.a.m.
   Forms, 13 w.a.m.

3. Filing correspondence in an alphabetic, numeric, subject, or geographic file; maintaining files using "out" guides and requisitions; and utilizing techniques of micrographics.

4. Inputing mathematical data using the touch system and the 10-key numeric pad of the microprocessor.

5. Handling incoming and outgoing telephone calls in a friendly, courteous, helpful, and businesslike manner.

6. Sorting, opening, dating, stamping, annotating, and distributing incoming mail.

7. Preparing outgoing mail, including folding and inserting letters properly into envelopes, sealing, weighing, and affixing appropriate postage on each item.

8. Greeting visitors in a manner which exhibits appropriate business behavior.

9. Duplicating documents on convenience copiers.

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10. Using a word processor to type, store, edit, and recall business documents.

11. Using the electronic typewriter, the word processor, and the word-processing capabilities of a microprocessor to type business documents.

12. Handling routine payroll records for a business.

13. Recognizing the basic concepts of computer hardware, software, and processing methods.

14. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

15. Using arithmetic and basic statistical concepts necessary for problem-solving techniques.

A.A.S.	AOS: Information Processing Option

A student completing six quarters of Administrative Office Systems Technology - Information Processing Option requirements receives an Associate in Applied Science (A.A.S.) degree. For the graduate, broad training is provided in the secretarial field, as well as, a comprehensive knowledge of information processing concepts and systems.

Minimum Competencies:

Upon completion of the two-year information processing option, the graduate will have demonstrated competency in:

1. Typing straight-copy material at a minimum of 60 words a minute for 5 minutes with at least 98 percent accuracy.

2. Typing business papers for a sustained period of up to 50 minutes at the following production rates:

   Letters, 22 w.a.m.
   Statistical Tables, 12 w.a.m.
   Manuscripts and Reports, 18 w.a.m.
   Forms, 13 w.a.m.

3. Taking dictation of a non-technical nature at a minimum rate of 80 words a minute for 3 minutes and transcribing it back with 98 percent accuracy at a minimum transcription rate of 12 words a minute.

4. Taking dictation and transcribing in mailable letter form at progressive dictation rates from 60 to 80 words a minute and progressive transcription rates from 12 to 16 words a minute for a sustained period of 30 minutes.

5. Filing correspondence in an alphabetic, numeric, subject, or geographic file; maintaining files using "out" guides and requisitions; and utilizing techniques of micrographics.

6. Inputing mathematical data using the touch system and the 10-key numeric pad of a microprocessor.

7. Handling incoming and outging telephone calls in a friendly, courteous, helpful, and businesslike manner.

8. Sorting, opening, dating, stamping, annotating, and distributing incoming mail.

9. Preparing outgoing mail, including folding and inserting letters properly into envelopes, sealing, weighing, and affixing appropriate postage on each item.

10. Composing letters, memos, and reports that are coherent, concise, clear, complete, and grammatically correct.

11. Locating and summarizing information for a report or speech using general and business sources of information.

12. Taking minutes of a meeting and transcribing them back in proper format without error.

13. Planning a meeting or conference and following through on all details.

14. Planning an itinerary and making necessary travel arrangements.

15. Transcribing business documents from a voice-recording machine.

16. Greeting visitors in a manner which exhibits appropriate business behavior.

17. Performing all the steps in the accounting cycle for a single proprietorship, partnership, and corporation.

18. Using a word processor to type, store, edit, and recall business documents.

19. Duplicating documents on convenience copeirs.

20. Using the electronic typewriter, the word processor, and the word-processing capabilities of a microprocessor to type business documents.

21. Utilizing and applying the principles of basic marketing, management, accounting, and statistics.

22. Understanding the impact of positive motivation on people being managed. Motivation theories assimilated are those of:

    a. Taylor
    b. Hawthorne Studies
    c. Maslow
    d. McGregor
    e. Herzberg

23. Writing BASIC programs to solve business and financial problems.

24. Exhibiting familiarity with up-to-date communication techniques and terminology, such as baud rate, modem, multiplexor, and types of line errors and their causes.

25. Utilizing the correct usage of the English language as applied to office correspondence.

26. Implementing word-processing components to improve the efficiency of the office.

27. Composing and dictating correspondence, using standardized procedures and dictation equipment.

28. Performing the duties of a correspondence secretary, administrative secretary, and office supervisor in an actual in-house office situation.

29. Recognizing the basic concpets of computer hardware, software, and processing methods.

30. Using arithmetic and basic statistical concepts necessary for problem-solving techniques.

31. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

32. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Information Processing curriculum will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 132 hours in an off-campus office setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

A.A.S.	AOS: Executive Secretarial Option

A student completing six quarters of Administrative Office Systems Technology - Executive Secretarial Option requirements receives an Associate in Applied Science (A.A.S.) degree. For the graduate, broad training is provided in the secretarial field, as well as, in stenography.

Minimum Competencies:

Upon completion of the two-year executive secretarial option, the graduate will have demonstrated competency in:

1. Typing straight-copy material at a minimum of 60 words a minute for 5 minutes with at least 98 percent accuracy.

2. Typing business papers for a sustained period of up to 50 minutes at the following production rates:

   Letters, 22 w.a.m.
   Statistical Tables, 12 w.a.m.
   Manuscripts and Reports, 18 w.a.m.
   Forms, 13 w.a.m.

3. Taking dictation of a non-technical nature at a minimum rate of 100 words a minute for 5 minutes and transcribing it back with 98 percent accuracy at a minimum transcription rate of 20 words a minute.

4. Taking dictation and transcribing in mailable letter form at progressive dictation rates from 95 to 105 words a minute and progressive transcription rates from 20 to 25 words a minute for a sustained period of 30 minutes.

5. Filing correspondence in an alphabetic, numeric, subject, or geographic file; maintaining files using "out" guides and requisitions; and utilizing techniques of micrographics.

6. Inputing mathematical data using the touch system and the 10-key numeric pad of a microprocessor.

7. Handling incoming and outgoing telephone calls in a friendly, courteous, helpful, and businesslike manner.

8. Sorting, opening, dating, stamping, annotating, and distributing incoming mail.

9. Preparing outgoing mail, including folding and inserting letters properly into envelopes, sealing, weighing, and affixing appropriate postage on each item.

10. Composing letters, memos, and reports that are coherent, concise, clear, complete, and grammatically correct.

11. Locating and summarizing information for a report or speech using general and business sources of information.

12. Taking minutes of a meeting and transcribing them back in proper format without error.

13. Planning a meeting or confernece and following through on all details.

14. Planning an itinerary and making necessary travel arrangements.

15. Transcribing business documents from a voice-recording machine.

16. Greeting visitors in a manner which exhibits appropriate business behavior.

17. Performing all the steps in the accounting cycle for a single proprietorship, partnership, and corporation.

18. Using a word processor to type, store, edit, and recall business documents.

19. Duplicating documents on convenience copiers.

20. Using the electronic typewriter, the word processor, and the word-processing capabilities of a microprocessor to type business documents.

21. Utilizing and applying the principles of basic marketing, management, accounting, and statistics.

22. Understanding the impact of positive motivation on people being managed. Motivation theories assimilated are those of:

    a. Taylor
    b. Hawthorne Studies
    c. Maslow
    d. McGregor
    e. Herzberg

23. Implementing word-processing components to improve the efficiency of the office.

24. Utilizing the correct usage of the English language as applied to office correspondence.

25. Performing the duties of a correspondence secretary, administrative secretary, and office supervisor in an actual in-house office situation.

26. Recognizing the basic concepts of computer hardware, software, and processing methods.

27. Composing and dictating correspondence using standardized procedures and dictating equipment.

28. Using arithmetic and basic statistical concepts necessary for problem-solving techniques.

29. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

30. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Executive Secretarial curriculum will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 132 hours in an off-campus office setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

Certificate	AOS: Medical Office Assistant

A student completing the required courses for the Administrative Office Systems Technology - Medical Office Assistant program will receive a certificate. For the graduate, training is provided in the medical-secretarial field.

Minimum Competencies:

Upon completion of the required courses, the graduate will have demonstrated competency in:

1. Typing medical straight-copy material at a minimum of 50 words a minute for five minutes with at least 98 percent accuracy.
2. Typing medical forms and reports from rough draft and unarranged copy for a sustained period of up to 50 minutes at a minimum production rate of 12 words a minute.
3. Using the electronic typewriter, the word processor, and the word-processing capabilities of a microprocessor.
4. Transcribing medical letters, forms, and reports from a voice-recording machine.
5. Understanding medical prefixes, roots, suffixes, abbreviations, vocabulary, and major systems of the body.
6. Handling patients properly in a medical office.
7. Preparing patient records, including medical insurance forms.
8. Preparing medical office financial reports and records.
9. Composing and typing minutes of a meeting from rough draft notes.
10. Composing letters, reports, and correspondence related to the medical profession.
11. Scheduling medical office appointments and preparing appointment cards.

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12. Filling in telephone message blanks and logging in telephone calls for the medical office.

13. Understanding medical law in relation to the duties of a medical assistant and the legal aspects of a medical office practice in Delaware.

14. Understanding the ethical codes necessary for functioning in a medical office.

Diploma	AOS: Stenographic Studies

A student completing three quarters of Administrative Office Systems Technology - Stenographic Studies requirements receives a diploma. For the graduate, minimum training is provided in the secretarial field with emphasis on stenography.

Minimum Competencies:

Upon completion of the one-year stenographic studies diploma program, the graduate will have demonstrated competency in:

1. Typing straight-copy material at a minimum of 50 words a minute for 5 minutes with at least 98 percent accuracy.

2. Typing business documents for a sustained period of up to 50 minutes at the following minimum production rates:

   Letters, 20 w.a.m.
   Statistical Tables, 12 w.a.m.
   Manuscripts and Reports, 17 w.a.m.
   Forms, 13 w.a.m.

3. Taking dictation of a non-technical nature at a minimum rate of 80 words a minute for 3 minutes and transcribing it back with 97 percent accuracy at a minimum transcription rate of 12 words a minute.

4. Taking dictation and transcribing in mailable letter form at progressive dictation rates from 60 to 70 words a minute and progressive transcription rates from 12 to 15 words a minute for a sustained period of 30 minutes.

5. Filing correspondence in an alphabetic, numeric, subject or geographic file; maintaining control of the files using "out" guides and requisitions; and utilizing techniques of micrographics.

6. Inputting mathematical data using the touch system and the 10-key numeric pad of a microprocessor.

7. Handling incoming and outgoing telephone calls in a friendly, courteous, helpful, and businesslike manner.

8. Sorting, opening, dating, stamping, annotating, and distributing incoming mail.

9. Preparing outgoing mail, including folding and inserting letters properly into envelopes, sealing, weighing, and affixing appropriate postage on each item.

10. Proposing letters, memos, and reports that are coherent, concise, clear, complete, and grammatically correct.

11. Locating and summarizing information for a report or speech using general and business sources of information.

12. Taking minutes of a meeting and transcribing them back in proper format without error.

13. Planning a meeting or conference and following through on all details.

14. Planning an itinerary and making necessary travel arrangements.

15. Transcribing business documents from a voice-recording machine.

16. Greeting visitors in a manner which exhibits appropriate business behavior.

17. Using the word processor to type, store, edit, and recall business documents.

18. Duplicating documents on convenience copiers.

19. Using the electronic typewriter, the word processor, and the word-processing capabilities of a microprocessor to type business documents, which include statistical information.

20. Utilizing the correct usage of the English language as applied to office correspondence.

21. Recognizing the basic concepts of computer hardware, software, and processing methods.

22. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

Diploma	AOS: Word Processing Studies

A student completing three quarters of Administrative Office Systems Technology - Word Processing Studies requirements receives a diploma. For the graduate, minimum training is provided in the secretarial field, as well as, a comprehensive knowledge of word processing concepts, systems, and equipment used in the business office.

Minimum Competencies:

Upon completion of the one-year word processing studies diploma program, the graduate will have demonstrated competency in:

1. Typing straight-copy material at a minimum of 50 words a minute for 5 minutes with at least 98 percent accuracy.

2. Typing business papers for a sustained period of up to 50 minutes at the following production rates:

   Letters, 20 w.a.m.
   Statistical Tables, 12 w.a.m.
   Manuscripts and Reports, 17 w.a.m.
   Forms, 13 w.a.m.

3. Filing correspondence in an alphabetic, numeric, subject, or geographic file; maintaining files using "out" guides and requisitions; and utilizing techniques of micrographics.

4. Handling incoming and outgoing telephone calls in a friendly, courteous, helpful, and businesslike manner.

5. Sorting, opening, dating, stamping, annotating, and distributing incoming mail.

6. Preparing outgoing mail, including folding and inserting letters properly into envelopes, sealing, weighing, and affixing appropriate postage on each item.

7. Composing letters, memos, and reports that are coherent, concise, clear, complete, and grammatically correct.

8. Locating and summarizing information for a report or speech using general and business sources of information.

9. Taking minutes of a meeting and transcribing them back in proper format without error.

10. Planning a meeting or conference and following through on all details.

11. Planning an itinerary and making necessary travel arrangements.

12. Transcribing business documents from a voice-recording machine.

13. Greeting visitors in a manner which exhibits appropriate business behavior.

14. Using a word processor to type, store, edit, and recall business documents.

15. Duplicating documents on convenience copiers.

16. Using the elctronic typewriter, the word processor, and the word-processing capabilities of a microprocessor to type business documents.

17. Implementing word-processing components to improve the efficiency of the office.

18. Composing and dictating correspondence using standardized procedures and dictation equipment.

19. Utilizing the correct usage of the English language as applied to office correspondence.

20. Using arithmetic and basic statistical concepts necessary for problem-solving techniques.

21. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

A.A.S.	AS: Aviation Management Option

A student completing six quarters of the Aeronautical Science Technology - Aviation Management Option receives an Associate in Applied Science (A.A.S.) degree. For the graduate, broad training takes place in the areas of aviation, business, and management. The student develops an early understanding of the coordinated nature of aircraft operations and scheduling from a close association with pilots.

Minimum Competencies:

Upon completion of the two-year Aviation Management option, the graduate will have demonstrated competency in:

1. Understanding sound and profitable airfield business operations.
2. Analyzing personnel management situations and problems.
3. Evaluating inflight and ground control factors and managing an aircraft fleet.
4. Solving basic air navigational problems in both the visual and electronic navigational aid environment.
5. Demonstrating a working knowledge of aircraft components and systems and of emergency procedures appropriate to those systems.
6. Preparing take-off and landing data.
7. Understanding ground and flight safety factors and procedures for eliminating incidents and accidents.
8. Comprehending FAA regulations that pertain to safe operation of aircraft, both inflight and on the ground.
9. Analyzing weather data and interpreting hazards to flight.
10. Demonstrating a working knowledge of ground and flight publications and resources available to a pilot in the areas of flight planning and operations.

11. Understanding the guidelines and resources available to the airport manager for planning the development of the airfield and building in clearance criteria.

12. Analyzing current airline operational and management decisions in historical and current context and applying this knowledge to current problems.

13. Understanding basic legal aviation terminology and related rights and liabilities.

14. Recognizing human psychological and physiological factors associated with safe aircrew scheduling.

15. Solving accounting problems.

16. Recognizing the basic concepts of computer hardware, software, and processing methods.

17. Demonstrating those business competencies outlined in Business Administration in the areas of marketing, economics, management, advcertising, selling, negotiating, and cost savings as incorporated in the curriculum courses taken.

18. Solving business, accounting, and economic problems using mathematical concepts.

19. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

20. Developing and presenting an effective oral and written technical report.

A.A.S.	AS: Flight Option

A student completing six quarters of the Aeronautical Science Technology - Flight Option receives an Associate in Applied Science (A.A.S.) degree. The student also receives FAA certification as a Commercial Instrument Pilot and is fully qualified for entry level employment in the aviation field.

Minimum Competencies:

Upon completion of the two-year Flight Option, the graduate will have demonstrated competency in:

1. Operating an aircraft safely under both visual and instrument conditions (evaluated by an FAA Flight Examiner).
2. Landing an aircraft under both day and night conditions with and without crosswind.
3. Solving basic air navigational problems in both the visual and electronic navigational aid environment.
4. Demonstrating a working knowledge of aircraft components and systems and of emergency procedures appropriate to those systems.
5. Completing inflight coordination maneuvers which indicate control of the aircraft through the use of ground reference points.
6. Preparing take-off and landing data.
7. Understanding the FAA regulations that pertain to safe operation of aircraft, both in flight and on the ground.
8. Demonstrating a working knowledge of ground and air publications and resources available to a pilot in the areas of flight planning and inflight operations.
9. Understanding common cause factors in aircraft accidents.
10. Analyzing weather data and interpreting hazards to flight.

11. Understanding the guidelines and resources available to the airport manager and determining safe planning criteria and safe, economical operations, as well as, sound application of business principles.

12. Analyzing current airline operational and management decisions in historical and current context along with application to current situations.

13. Understanding basic legal aviation terminology and pilot's rights and liabilities.

14. Demonstrating the ability to interpret social and human psychological factors as they relate to the flight environment.

15. Recognizing physiological problems, such as hypoxia and vertigo, and their limiting natures.

16. Recognizing the basic concepts of computer hardware, software, and processing methods.

17. Solving flight, business, and economic problems using mathematical concepts.

18. Passing the Private Pilot written examination administered by the Federal Aviation Administration.

19. Passing the Commercial Pilot written examination administered by the Federal Aviation Administration.

20. Passing the Instrument Pilot written examination administered by the Federal Aviation Administration.

21. Perceiving motvational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

22. Developing and presenting an effective oral and written technical report.

A.A.S.	BA: Accounting Option

The Business Administration Technology - Accounting Option offers a student an Associate in Applied Science (A.A.S.) degree. The curriculum provides a six-quarter comprehensive, post-secondary program designed to prepare the student for an entry-level position in the accounting profession. The curriculum courses include comprehensive study in both financial and managerial accounting, taxation, and auditing, as well as, courses in general business, data processing, mathematics, communications skills, and humanities.

Minimum Competencies:
Upon completion of the two-year Accounting Option, the graduate will have demonstrated competency in:

1. Analyzing, interpreting, recording, and reporting data for various types of businesses and various forms of business ownership.

2. Identifying the different career areas in business.

3. Defining the "Theory of the Firm" and its application to business situations.

4. Preparing tax returns and being knowledgeable in tax planning for individuals and small businesses.

5. Understanding the theory and application of cost accounting principles and procedures to aid management in recordkeeping, performance measurement, and business decisions.

6. Comprehending the theory and application of generally accepted accounting principles to the more complex areas of corporate accounting such as valuation, income determination, and financial reporting.

7. Identifying the basic principles of business law and their application to business situations.

8. Understanding the theory and application of generally accepted auditing standards.

9. Comprehending the principles of money and banking and the role of the Federal Reserve System in conducting economic stabilization policies.

10. Applying the principles of sound business management to simulated conditions with the computer as an aid in decision making, using quantitative methods.

11. Solving business problems using, as a minimum, mathematical concepts from algebra to statistics.

12. Writing BASIC programs to solve business and financial problems.

13. Recognizing the basic concepts of computer hardware, software, and processing methods.

14. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

15. Developing and presenting an effective oral and written technical report.

A.A.S.	BA: Banking Option

The Business Administration Technology - Banking Option offers a student an Associate in Applied Science (A.A.S.) degree. The curriculum provides a six-quarter, comprehensive, post-secondary program conducted jointly by the College and the American Institute of Banking to prepare the individual for a position of responsibility in the banking industry. The curriculum includes a blend of basic business, accounting, mathematics, communications skills, and humanities courses conducted by the College and ten specialized banking courses conducted by the American Institute of Banking.

Minimum Competencies:

Upon completion of the DT&CC coursework for the two-year Banking Option, the graduate will have demonstrated competency in:

1. Analyzing, interpreting, recording, and reporting data for various types of businesses and various forms of business ownership.

2. Identifying the different career areas in business.

3. Defining the "Theory of the Firm" and its application to business situations.

4. Understanding the basic principles of business law and their application to business situations.

5. Comprehending the principles of money and banking and the role of the Federal Reserve System in conducting economic stabilization policies.

6. Solving business problems using, as a minimum, mathematical concepts from algebra to statistics.

7. Understanding management theories and their application to business situations.

8. Advertising theory and application to business situations.

9. Recognizing the basic concepts of computer hardware, software, and processing methods.

10. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

11. Developing and presenting an effective oral and written technical report.

Additionally, in order for a student to graduate with an A.A.S. degree, he/she must successfully complete all courses required in this program and offered by the American Institute of Banking.

A.A.S.	BA: Business--General Option

The Business Administration Technology--General Option offers a student an Associate in Applied Science (A.A.S.) degree. The curriculum provides a six-quarter, comprehensive, post-secondary program designed to give the student a general business background combined with more specialized study in a different technology that will prepare the student for an entry-level managerial or administrative position in a technical non-business field. The curriculum courses include an integration of business, accounting, mathematics, communications skills, data processing, and humanities courses with a minimum of six specifically selected cours in a technology other than business.

Minimum Competencies:

Upon completion of the two-year Business--General Option, the graduate will have demonstrated competency in:

1. Analyzing, interpreting, recording, and reporting data for various types of businesses and various forms of business ownership.

2. Identifying the different career areas in business.

3. Defining the "Theory of the Firm" and its application to business situations.

4. Understanding the principles of money and banking and the role of the Federal Reserve System in conducting economic stabilization policies.

5. Comprehending management theories and their application to business situations.

6. Solving business problems using, as a minimum, mathematical concepts from algebra to statistics.

7. Recognizing the basic concepts of computer hardware, software, and processing methods.

8. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

9. Developing and presenting an effective oral and written technical report.

Additionally, competencies are determined by student's selection of concentrated coursework.

A.A.S.	BA: Management and Marketing Option

The Business Administration Technology - Management and Marketing Option offers a student an Associate in Applied Science (A.A.S.) degree. The curriculum provides a six-quarter, comprehensive, post-secondary program designed to prepare the student for an entry-level position in the management and/or marketing areas. The curriculum courses include both basic and advanced study marketing and management, as well as, courses in general business, accounting, data processing, mathematics, communications skills, and humanities.

Minimum Competencies:

Upon completion of the two-year Management and Marketing Option, the graduate will have demonstrated competency in:

1. Analyzing, interpreting, recording, and reporting data for various types of businesses and various forms of business ownership.

2. Identifying the different career areas in business.

3. Defining the "Theory of the Firm" and its application to business situations.

4. Understanding the basic principles of business law and their application to business situations.

5. Comprehending the principles of money and banking and the role of the Federal Reserve System in conducting economic stabilization policies.

6. Applying the principles of sound business management to simulated conditions with the computer as an aid in decision making using quantitative methods.

7. Solving business problems using as a minimum algebraic and statistical concepts.

8. Understanding management theories and their application to business situations.

9. Applying personal selling techniques.

10. Comprehending advertising theory and applying it to business situations.

11. Understanding investment theories and their application.

12. Recognizing the basic concepts of computer hardware, software, and processing methods.

13. Understanding marketing theories and their application to business situations.

14. Organizing, analyzing, and interpreting accounting data for internal management use.

15. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

16. Developing and presenting an effective oral and written technical report.

A.A.S.	BS: Architectural Drafting Option

A student completing six quarters of the Building Science Technology - Architectural Drafting Option requirements receives an Associate in Applied Science (A.A.S.) degree. For the graduate, broad training in the building design and construction industry is combined with a comprehensive knowledge of architectural drafting.

Minimum Competencies:

Upon completion of the two-year Architectural Drafting Option, the graduate will have demonstrated competency in:

1. Applying fundamental drafting skills including the use of drafting equipment, neatness, accuracy, symbols, and dimensions.

2. Using drafting and problem-solving skills along with the application of the knowledge of common construction methods and materials toward the preparation of a set of working drawings for a residential or light commercial building (site plans, foundation plans, floor plans, elevations, sections, and details).

3. Understanding types, uses, applications, and properties of common construction materials and the assembly of these materials into component parts in forming common structural systems.

4. Applying a working knowledge of common structural systems and the components of each system.

5. Preparing material take-offs from construction drawings and specifications.

6. Understanding contracts and specifications in the construction industry, such as bids, bonds, insurance, legal principles, government regulations, contract documents, and specification formats.

7. Comprehending the importance of zoning ordinances and building codes.

8. Applying a working knowledge of basic electrical, plumbing and HVAC systems to include terms, principles, design, and drafting.

9. Solving basic civil drafting problems with fundamental drafting skills to include steel shop drawings, highway cross-sections, profiles, plot plans, and site plans.

10. Understanding and performing basic survey problems to include fieldbook formats, instrument set-up and data collection for leveling, transit and theodolite work.

11. Applying drafting skills for the design of construction assemblies of various systems and building components, with emphasis on technical content and standard reference material.

12. Planning scheduling, and organizing for the erection of a structure to include management, personnel, and materials handling.

13. Applying fundamental principles of structural analysis to include shear and bending moments in designing simple beams and columns.

14. Developing an awareness of the responsibilities associated with a job in the architectural field.

15. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra and trigonometry.

16. Applying the principles and concepts of physics to solve engineering problems.

17. Writing and using the computer programs to solve scientific problems using the programming languages of FORTRAN or BASIC.

18. Reading and interpreting construction blueprints.

19. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

20. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Architectural Drafting curriculum will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 792 hours in an off-campus industrial setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

Diploma	BS: Architectural Drafting Studies

A student in the one-year diploma program in Building Science Technology - Architectural Drafting Studies develops architectural drafting skills in many different areas, as well as, completing reading, writing, mathematical, and science requirements.

Minimum Competencies:

Upon completion of the one-year Architectural Drafting Studies program, the graduate will have demonstrated competency in:

1. Reading and interpreting construction (architectural and small commercial) blueprints.

2. Understanding types, uses, applications, and properties of common construction industry, such as bids, bonds, insurance, legal principles, government regulations, contract documents, and specification formats.

3. Visualizing special and conceptual relationships of common structural systems and the components of each system as demonstrated by drawing sections and details of various buildings.

4. Applying fundamental drafting skills including the use of drafting equipment, neatness, accuracy, symbols, and dimensions.

5. Using drafting and problem-solving skills along with the application of the knowledge of common construction methods and materials toward the preparation of a set of working drawings for a residential or a light commercial building (site plans, foundation plans, floor plans, elevations, sections, and details).

6. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra and trigonometry.

7. Applying the principles and concepts of physics to solve engineering problems.

8. Writing programs or using the computer to solve scientific problems using the programming languages of FORTRAN or BASIC.

9. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

10. Developing and presenting an effective oral and written technical report.

A.A.S.	BS: Civil Engineering Option

A student completing six quarters of the Building Science Technology - Civil Engineering Option requirements receives an Associate in Applied Science (A.A.S.) degree. For the graduate, broad training in the building design and construction industry is combined with a knowledge of surveying, soils, concrete, asphalt, and structural systems.

Minimum Competencies:

Upon completion of the two-year Civil Engineering Option, the graduate will have demonstrated competency in:

1. Applying fundamental drafting skills including the use of drafting equipment, neatness, accuracy, symbols, and dimensions.

2. Understanding the organization of construction plans and specifications.

3. Performing basic surveying problems such as laying out sites; differential leveling; calculating and staking circular curves; calculating land areas with calculators and planimeters; preparing topographic maps; and calculating and staking sewer construction grade stakes and highway grade stakes.

4. Performing and interpreting results of common field testing procedures in the areas of compaction, density, and compressive strengths, safety limits, and other related trests commonly associated with soils and aggregates.

5. Understanding types, uses, applications, and properties of common construction materials and the assembly of these materials into component parts in forming common structural systems.

6. Preparing material take-offs from construction drawings and specifications.

7. Understanding contracts and specifications in the construction industry, such as bids, bonds, insurance, legal principles, government regulations, contract documents, and specification formats.

8. Planning, scheduling, and organizing for the erection of a structure to include managewment, personnel, and materials.

9. Writing and using the computer to solve scientific problems using the programming languages of FORTRAN or BASIC.

10. Understanding the principles, practices, and workings of water and sewage systems.

11. Applying fundamental principles of structural analysis to include shear and bending moments in designing simple beams and columns.

12. Understanding the makeup and testing of aggregates, cements, asphalts, admixtures, and concretes to include products, uses, properties, mixtures, quality, lab, and field testing.

13. Applying the principles and concepts of physics to solve engineering problems.

14. Solving scientific problems using, as a minimum, mathematical concepts to solve engineering problems from algebra and trigonometry.

15. Developing an awareness of the responsibilities associated with a job in the civil engineering field.

16. Reading and interpreting construction blueprints.

17. Perceiving motivational forces that affect human relations in any or all of the following environments: social, political, economic, and interpersonal.

18. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Civil Engineering curriculum will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 792 hours in an off-campus industrial setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

A.A.S.	BS: Construction Management Option

A student completing six quarters of the Building Science Technology - Construction Management Option requirements receives an Associate in Applied Science (A.A.S.) degree. For the graduate, broad training in the design of the building construction process and management skills are combined for a comprehensive knowledge of the administrative processes involved in a construction firm.

Minimum Competencies:

Upon completion of the two-year Construction Management option, the graduate will have demonstrated competency in:

1. Reading and interpreting construction (architectural and small commercial) blueprints.

2. Understanding types, uses, application, and properties of common construction materials and the assembly of these materials into component parts in forming common structural systems.

3. Solving basic construction drafting problems with fundamental drafting skills, including the use of equipment, neatness, accuracy, symbols, and dimensions.

4. Preparing material take-offs from construction drawings and specifications.

5. Preparing material take-offs and cost analysis working from construction drawings and specifications.

6. Solving basic construction surveying problems, such as setting sewer and highway construction grade stakes setting building batter boards and site layouts.

7. Understanding the importance of zoning ordinances and building codes.

8. Comprehending fundamental construction processes of common structures from plans to finished product to sewage systems.

9. Solving scientific problems using, as a minimum, mathematical concepts from algebra through trigonometry.

10. Applying the principles and concepts of physics to solve engineering problems.

11. Writing programs and using the computer to solve scientific problems using the programming languages of FORTRAN or BASIC.

12. Understanding the concepts of the free enterprise system as it applies to the construction industry.

13. Maintaining accurate records of inventory and cost of goods.

14. Establishing and maintaining basic systems of internal control over cash receipts, payroll, and petty cash.

15. Analyzing, recording, and summarizing the day-to-day transactions of a construction firm.

16. Preparing budgets, allocations, and entries necessary to record the operation of a construction field office.

17. Being aware of the responsibilities associated with a job in management in a construction field office.

18. Applying fundamental principles of structural analysis to include shear and bending moments in designing simple beams and columns.

19. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

20. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Construction Management curriculum will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 792 hours in an off-campus industrial setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

Diploma	BS: Construction Studies

A student in the one-year diploma program in Building Science Technology - Construction Studies receives over 450 technical hours in courses directly related to the construction industry, as well as, completing writing, reading, mathematical, and science requirements.

Minimum Competencies:

Upon completion of the one-year Construction Studies program, the graduate will have demonstrated competency in:

1. Reading and interpreting construction (architectural and small commercial) blueprints.

2. Solving basic construction drafting problems with fundamental basic drafting skills, including use of equipment, neatness, accuracy, symbols, and dimensions.

3. Understanding types, uses, applications, and properties of common construction materials and the assembly of these materials into component parts in forming common structural systems.

4. Setting up and using levels and transits in obtaining basic field information and site layout within current acceptable standards.

5. Understanding contracts and specifications in the construction industry, such as bids, bonds, insurance, legal principles, government regulations, contract documents, and specification formats.

6. Reading and understanding codes, zoning ordinances, and legislation that affects the construction industry.

7. Understanding the organization and management of a construction firm involving the areas of equipment, payroll, wage scales, depreciation, scheduling, mobilization, and field office setup.

8. Preparing material take-offs from construction drawings and specifications.

9. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra and trigonometry.

10. Applying the principles and concepts of physics to solve engineering problems.

11. Writing and using the computer programs to solve scientific problems using the programming languages of FORTRAN or BASIC.

12. Applying fundamental principles of structural analysis to include shear and ending moments in designing simple beams and columns.

13. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

14. Developing and presenting an effective oral and written technical report.

Diploma	BS: Mechanical Drafting Studies

A student in the one-year diploma program in Building Science Technology - Mechanical Drafting Studies develops drafting skills in many different areas, as well as, completing reading, writing, mathematical, and science requirements.

Minimum Competencies:

Upon completion of the one-year Mechanical Drafting Studies curriculum, the graduate will have demonstrated competency in:

1. Reading and interpreting machine trade blueprints.

2. Solving basic machine drafting problems with fundamental drafting skills including use of equipment, neatness, accuracy, symbols, threads, fasteners, dimensions, tolerancing, and metric conversion.

3. Visualizing spacial and conceptual relationships in three dimensional drawings of actual objects in the areas of sections, auxiliary, projections, and threads and fasteners in the design or development of machine drawings.

4. Applying drafting and problem-solving skills in the application of the knowledge of machine parts toward the preparation of a production drawing(s) for a simple machine process.

5. Applying the principles and concepts of physics to solve engineering problems.

6. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra and trigonometry.

7. Writing and using the computer to solve scientific problems using the programming languages of FORTRAN or BASIC.

8. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

9. Developing and presenting an effective oral and written technical report.

Diploma	BS: Surveying Studies

A student in the one-year diploma program in Building Science Technology - Surveying Studies receives over 450 hours of instruction directly related to the field of surveying, as well as, completing reading, writing, mathematical, and science requirements.

Minimum Competencies:

Upon completion of the one-year Surveying Studies diploma curriculum, the graduate will have demonstrated competency in:

1. Setting up, using, and caring for various types of surveying equipment, including dumpy levels, automatic levels, transits, EDM, and theodolites.

2. Keeping neat, accurate, and legible field notes showing the necessary checks and documentation within current acceptable field standards.

3. Taping, including application of corrections for standard tape, temperature, tension, sag, and slopes.

4. Using profile leveling and cross-sectioning, including preliminary, location, and construction surveys; calculations for cut and fill; and drawing of plans and profile.

5. Applying basic drafting skills including the use of equipment, neatness, accuracy, symbols, and dimensions to industry standards in the drawing of topographic plans, site plans, property plans, and other drawings associated with surveying.

6. Determining magnetic north, true north, and bearings and/or azimuths from interior angles, angles to the right, and deflection angles.

7. Computing and laying out simple, vertical, compound, reverse, and spiral curves.

8. Computing latitudes and departures to close a figure and calculate land area by DMD.

9. Interpreting current legal principles and terminology in surveying, including boundary control, subdivisions, urban development, and systems used to describe property.

10. Calculating land areas by solving for areas of triangles or with the use of planimeters.

11. Operating a computer terminal or small programmable calculator for inputting data for various surveying problems and for interpreting the results.

12. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra and trigonometry.

13. Applying the principles and concpets of physics to solve engineering problems.

16. Writing and using the compute to solve scientific problems using the programming languages of FORTRAN or BASIC.

17. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

18. Developing and presenting an effective oral and written technical report.

A.A.S.	CJ: Criminal Justice

The Criminal Justice Technology Department offers a student an Associate of Applied Science (A.A.S.) degree. The criminal justice system is composed of police, courts, corrections, and those ancillary services that support the component parts of the system. The department provides academic services for both the student new to the field and for the employee actively engaged in the field of criminal justice.

The Criminal Justice program provides the student with minimal entry-level instruction in many aspects of the criminal justice system and the requirements necessary for employment in police, courts, corrections, and those services that impact the system. The curriculum also offers above entry-level theory and concepts necessary for the delivery of services to the community.

Minimum Competencies:

Upon completion of the two-year Criminal Justice curriculum, the graduate will have demonstrated competency in:

1. Understanding basic criminal law, criminal procedures, and constitutional law as they apply to the criminal justice system.

2. Relating technical information with a broad criminal justice vocabulary.

3. Possessing a working knowledge of the total criminal justice system and how the components interrelate within the system.

4. Delineating the responsibilities of police, courts, and corrections and the functions of those various agencies.

5. Understanding legal definitions of "reasonable doubt," "direct examination," "cross examination," "self-incrimination," "search and seizure," "juvenile delinquency," "evidence," and "correctional objectives."

6. Recognizing and appreciating the contemporary problems and issues of criminal justice administrators.

7. Realizing the role of a criminal justice practitioner as a public servant rather than as an independent individual.

8. Delineating the total criminal justice process for juveniles and adults from violation through arrest, trial, and disposition; explaining possible alternatives at each step; and understanding the social, legal, and personal ramifications of each.

9. Comprehending and applying basic theories and techniques of individual and group counseling approaches.

10. Understanding adaptive and maladaptive adjustment processes present in human behavior.

11. Recognizing the basic concepts of computer hardware, software, and processing methods.

12. Using arithmetic and basic statistical concepts necessary for problem-solving techniques.

13. Identifying and assessing various causes of interpersonal conflicts resulting in crisis and implementing practical short term crisis intervention techniques.

14. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

15. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Criminal Justice curriculum will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 396 hours in an off-campus agency setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

A.A.S.	DP: Data Processing

The Data Processing Technology Department offers students an Associate in Applied Science (A.A.S.) degree. The curriculum provides a six-quarter, comprehensive, post-secondary program designed to prepare the individual as a computer programmer at the entry level. The curriculum courses include six quarters of programming (one of BASIC, two of RPG II, and three of COBOL), written and oral communications, mathematics (four quarters), accounting (three quarters), economics, and other related business courses.

Minimum Competencies:

Upon completion of the two-year Data Processing curriculum, the graduate will have demonstrated competency in:

1. Coding comprehensive RPG II programs to solve business and financial problems.

2. Coding complex COBOL programs capable of updating, maintaining, and reorganizing data files.

3. Coding BASIC programs to solve business and financial problems.

4. Demonstrating an understanding of accounting procedures by being able to post to the general ledger and subsidiary ledger and prepare and analyze balance sheets and income statements.

5. Showing his/her understanding of the systems process by conducting a systems investigation using preliminary investigation, detailed systems study and analysis, systems design, system development, and implementation.

6. Exhibiting familiarity with up-to-date communication techniques and terminology, such as baud rate, modem, multiplexor, types of line errors, and their causes.

7. Performing routine program maintenance.

8. Knowing the elements of structured programming and applying this knowledge to writing COBOL programs.

9. Understanding general hardware specifications of different manufacturers' computers and designing a correct system with various constraints as to CPU size, disk area, and CPU memory type (virtual vs. convential, on-line vs. batch, and others).

10. Solving business problems using, as a minimum, mathematical concepts from algebra to statistics.

11. Recognizing the concepts of computer hardware, software, and processing methods.

12. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

13. Developing and presenting an effective oral and written technical report.

A.A.S.	EC: Computer Engineering

The Computer Engineering Technology Department awards a student an Associate in Applied Science (A.A.S.) degree. To receive this degree, the student must complete six quarters of training adapted to the dynamic mini/microcomputer field. The graduating student will be able to write computer programs in common high-level languages, as well as, assembly and machine languages, design simple hardware used in digital data transmission, and troubleshoot and repair common computer devices.

Minimum Competencies:

Upon completion of the two-year Computer Engineering curriculum, the graduate will have demonstrated competency in:

1. Following safe procedures and practices while working with electronic equipment.
2. Reading and interpreting electronic schematic diagrams.
3. Identifying color codes and electronic components.
4. Using proper techniques for mounting electronic equipment as a basis for diagnosis and correction of faults.
6. Constructing basic electronic circuits using schematic drawings as a guide.
7. Evaluating the operation of electronic circuits to determine compliance with technical specifications.
8. Reading and understanding instruction/operating manuals for precise content to put into operation new computer equipment.
9. Reading and understanding instruction/operating manuals to operate and use electronic test equipment.
10. Assisting, as a member of an electronics/computer engineering team, in the development and application of digital electronic equipment with an entry-level ability to assist in the preparation of programs for microcomputer equipment.

11. Troubleshooting and repairing common electronic problems in mini/microcomputer terminals and other microcomputer equipment.

12. Troubleshooting and repairing microcomputers and microcomputer controllers of basic design.

13. Troubleshooting common data transmission problems.

14. Designing basic data transmission hardware.

15. Writing scientific and/or diagnostic computer programs for checkout of mini/microcomputers, using programming languages of Pascal, C, and FORTH.

16. Writing scientific and/or diagnostic programs in assembly language.

17. Writing scientific or business programs in BASIC, FORTRAN, or COBOL.

18. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra and trigonometry.

19. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

20. Developing and presenting an effective oral and written technical report.

A.A.S.	EL: Electronics

The Electronics Engineering Technology Department awards a student an Associate in Applied Science (A.A.S.) degree with options in electrical or electronics. To receive this degree, the student must complete six quarters of training adapted to the quickly developing needs of the electronics field. The graduating student will be able to construct electrical or electronic circuits from engineering designs provided by supervisory engineers, to apply test and evaluation procedures to electrical and electronic circuits, and to correct circuit and/or component defects with the use of instrument-aided analysis.

A graduate of the Electronics technology is qualified for at least an entry-level position in the electronics technician field.

Minimum Competencies:

Upon completion of the two-year Electronics curriculum, the graduate will have demonstrated competency in:

1. Using proper techniques for mounting electrical or electronic components and soldering them into place.

2. Reading and interpreting electrical and electronic schematic diagrams.

3. Identifying color codes and markings on electrical and electronic components.

4. Following safe procedures and practices while working with electrical and electronic equipment.

5. Performing instrumental measurements on electrical and electronic equipment as a basis for diagnosis and correction of faults.

6. Constructing basic electrical and electronic circuits using schematic drawings as a guide.

7. Evaluating the operation of electrical and electronic circuits to determine compliance with technical specifications.

8. Detecting and replacing defective components in electrical and electronic circuits.

9. Producing with modern drafting methods formal drawings of electrical and electronic circuits that may be used in the production of equipment.

10. Reading and understanding instruction/operating manuals for precise content to put into operation new electrical and electronic equipment.

11. Assisting, as a member of an electronics engineering team, in the development and application of digital electronic equipment with an entry-level ability to assist in the preparation of programs for microcomputer equipment used in industrial control processes.

12. Working cooperatively with inspection and engineering personnel in maintenance and operation programs for electrical and electronic equipment.

13. Operating and maintaining modern electronic communications equipment on an entry level.

14. Employing and maintaining electrical and electronic industrial motor control devices on an entry level.

15. Performing as a supplier of electrical and electronic parts by using appropriate catalogues and inventory documents on an entry level.

16. Writing computer programs to solve scientific problems using either of the programming languages, FORTRAN or BASIC.

17. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra and trigonometry.

18. Understanding the concepts of differential calculus.

19. Applying the principles and concepts of physics to solve engineering problems.

20. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

21. Developing and presenting an effective oral and written technical report.

A.A.S.	HS: Human Services

The Human Services Technology Department offers the student an Associate in Applied Science (A.A.S.) degree. To receive this degree, the student is required to complete six quarters of academic training. During the sixth quarter, the student is required to complete an internship program at an agency or organization which is approved by the Department.

The Human Services curriculum is designed to provide the graduate with broad and comprehensive training in such areas as community organization and development, counseling, program planning and implementation, and direct client services.

Minimum Competencies:

Upon completion of the Human Services curriculum, the graduate will have demonstrated competency in:

1. Understanding and applying basic theories and techniques of individual and group counseling approaches.

2. Identifying basic sociological concepts affecting individual and group behavior.

3. Recognizing major social policies, programs, and systems which influence the effective delivery of services.

4. Developing and designing a grant proposal related to human services in the public or private sector.

5. Understanding adaptive and maladaptive adjustment processes present in human behavior.

6. Participating in program planning, implementation, and direct delivery of services.

7. Maintaining comprehensive records and reports as required by internship agencies.

8. Selecting appropriate community resources to assist in solving the presenting problems of clients.

9. Analyzing major human services issues and ethical problems.

10. Understanding the history and philosophy of human services with an emphasis on the client-agency relationship.

11. Identifying basic management and leadership concepts in planning and evaluating human service programs in the public and private sectors.

12. Recognizing concepts and forces for effective communication within a multi-ethnic community.

13. Using arithmetic and basic statistical concepts necessary for problem-solving techniques.

14. Recognizing the basic concepts of computer hardware, software, and processing methods.

15. Identifying problem behavior and designing and implementing an effective behavioral change program.

16. Understanding and applying basic listening and communication skills.

17. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

18. Developing and presenting an effective oral and written technical report.

COOPERATIVE EDUCATION:

Those students choosing the cooperative education option of the Human Services curriculum will have the additional competency of being able to integrate selected theory and learned skills with a practical job situation. Competency will be demonstrated both by the student's successful employment for 396 hours in an off-campus agency setting under the supervision and work rules of the employing institution and the successful completion of specific learning assignments.

A.A.S.	MC: Electromechanical Engineering

The Electromechanical Engineering Technology Department awards a student an Associate in Applied Science (A.A.S.) degree. To receive this degree, the student must complete six quarters of training in the fields of electricity, electronics, process control and hydraulics/pneumatics. The graduating student will be able to construct electrical, electronic, and fluid circuits from engineering designs provided by supervisory engineers, to apply test and evaluation procedures to these circuits, and to correct circuit defects with instrument-aided analysis.

A graduate of this technology is qualified for at least an entry-level position in the electromechanical field.

Minimum Competencies:

Upon completion of the two-year Electromechanical Engineering Technology curriculum, the graduate will have demonstrated competency in:

1. Understanding the basic manufacturing process.
2. Using the machine tools found in the machine shop, such as lathes, milling machines, drill presses, and common mechanisms found in industry.
3. Constructing and testing electrical/electronic control circuits to include microprocessors, programmable controllers, and numerically controlled machines.
4. Understanding the use and construction of electrical testing instruments.
5. Understanding the use and construction of hydraulic and pneumatic testing instruments.
6. Understanding power generation and transmission in the area of fluid power (hydraulic and pnuematic).
7. Following safe procedures found in plant and/or industrial settings.
8. Drafting fundamentals, reading blueprints, and an understanding of the basics of CAD/CAM.

9. Understanding the basic principles of human resource management.

10. Solving scientific and engineering problems using, as a minimum, mathematical concepts from algebra through trigonometry.

11. Applying the principles and concepts of physics to solve engineering problems.

12. Writing useful programs in at least one computer language by entry of data into a computer through a keyboard.

13. Developing an awareness of the responsibilities associated with a job in the field of electromechanical technology.

14. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

15. Developing and presenting an effective oral and written technical report.

Diploma	PN: Practical Nursing

The Practical Nursing Department offers a diploma upon course completion. The diploma indicates a technical education with a background knowledge of related areas and biological sciences. The program is designed to provide students with structured clinical practice under the direct supervision of a nursing instructor in each of the clinical specialities of Medical-Surgical Nursing, Obstetrical Nursing, Pediatric Nursing, and Psychiatric Nursing.

Minimum Competencies:

Upon completion of the one-year Practical Nursing curriculum, the graduate will have demonstrated competency in:

1. Correlating normal patterns of anatomy and physiology with scientific rationale of all nursing procedures.

2. Demonstrating an awareness of the legal responsibilities of the LPN and practical nurse accordingly.

3. Knowing the functions and codes of ethics of nursing organizations and incorporate into the practice of nursing.

4. Applying pertinent nursing, social, and developmental principles and concepts in patient-care situations.

5. Executing nursing procedures in an efficient, orderly, and technically correct manner.

6. Identifying patient needs and instituting measures to meet these needs within the LPN's scope of practice.

7. Incorporating appropriate communication skills in interpersonal and professional situations occurring in the hospital environment.

8. Making observations, interpreting data, and taking appropriate action in clinical settings.

9. Providing complete bedside nursing care to medical-surgical, pediatric, and obstetrical patients.

10. Knowing the action, use, and side effects of commonly used therapeutic medications.

11. Providing patient teaching and discharging instructions to patients and their families appropriate to the demonstrated need and patient condition.

12. Analyzing and solving arithmetic concepts relating to drug dosage.

13. Administering oral, intramuscular, and subcutaneous medication.

14. Perceiving motivational forces that affect human relationships in any or all of the following environments: social, political, economic, and interpersonal.

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